

10/667,083

REMARKS

Claims 22-28 and 46-56 are all the claims pending in the application. Claims 46-56 are added above. Claim 26 stands objected to only as being dependent upon a rejected base claim, and would be allowable if rewritten in independent form to include all the limitations of the base claim and any intervening claims. As such, claim 26 has been rewritten in independent form to place it in condition for immediate allowance. Additionally, claims 22-24 stand rejected upon informalities, and claims 22-25, 27, and 28 stand rejected on prior art grounds. The specification and drawings also stand objected to. Applicants respectfully traverse these rejections based on the following discussion.

I. The Prior Art Rejections

Claims 22-28 stand rejected under 35 U.S.C. §102(e) as being anticipated by Fallah-Tehrani et al., hereinafter "Fallah-Tehrani" (U.S. Patent 6,405,348). Applicants respectfully traverse these rejections based on the following discussion because Fallah-Tehrani does not disclose a process that "checks for overlap between said translated victim window and each of said final set of aggressor sub-windows" as defined by independent claim 22.

The discussion in Fallah-Tehrani et al. in col. 10, lines 1-24 has to do with finding a specific alignment of one or more aggressor waveforms with respect to the switching time of the "victim" net under analysis. But the selection of the specific time alignment for each aggressor waveform is selected from within a single switching window. This is seen in col. 10, lines 56-59 and equations 910 and 920 of Fig. 9, in which it is stated that time shift TSi is chosen from

10/667,083

within a single timing window extending from T_{mini} to T_{maxi}. In contrast, the invention creates and uses multiple switching windows for an aggressor that cannot be represented by a single pair of min/max time values.

The "levels" discussed by Fallah-Tehrani et al. in col. 10, lines 1-24 have to do with a level of accuracy achieved by the method (specifically stating that little accuracy is lost by using superposition), while the claimed levels refers to the number of sequential logic gates through which tracing is performed to refine the aggressor switching windows.

The separate consideration of different inputs discussed by Fallah-Tehrani et al. in col. 10, lines 1-24 refers to combining effects of different aggressor nets coupled to a single victim. This appears to be what the Office Action is referring to when citing teaching that aggressors are sub-windowed according to their inputs. In contrast, the claimed sub-windowing has to do with dividing up a single range of possible switching times for an aggressor (T_{mini} to T_{maxi} in Fallah-Tehrani et al.) into multiple sub-ranges. Impacts from these different windows are not added, as in Fallah-Tehrani et al., but instead the invention compares a victim switching time with these multiple switching sub-windows to determine whether any switching of the aggressor can occur at the same time as the victim switches. Fallah-Tehrani et al. performs a comparison of each coupled net aggressor window with that of the victim, but again, these aggressor windows are characterized by a single time range from T_{mini} to T_{maxi}.

The forward and backward propagation in the invention has to do with propagation of information about switching times along paths from inputs to outputs of logic gates and from outputs to inputs of logic gates, respectively. In contrast, the discussion of switching direction in Fallah-Tehrani et al. refers to whether a signal is rising or falling. These meanings are completely different. And the "window of switching possibility" resulting from consideration of

10/667,083

switching direction, which Fallah-Tehrani et al. refer to in col. 8, line 32, relates to changes in the arrival times of endpoints of the switching period resulting from the range of possible circuit delays resulting from the range of possible switching relationships between the coupled nets.

Therefore, as shown above, it is Applicants' position that Fallah-Tehrani does not disclose a process that "checks for overlap between said translated victim window and each of said final set of aggressor sub-windows" as defined by independent claim 22. Therefore, Applicants respectfully submit that independent claim 22 is not anticipated by Fallah-Tehrani. Further, dependent claims 23-25, 27, and 28 are similarly not anticipated, not only because they depend from claim 22, but also because of the additional features of the invention they define. In view of the foregoing, Applicants respectfully request that the Examiner reconsider and withdraw this rejection.

II. Formal Matters and Conclusion

With respect to the objections to the claims, the claims have been amended to remove the term "may," more clearly identify the "input," and identify the "levels," above, to overcome these rejections. With respect to the objection to the drawings, replacement drawings sheets for Figures 1 and 2 designated as "Prior Art" are submitted herewith. In view of the forgoing, the Examiner is respectfully requested to reconsider and withdraw the objections to the claims and drawings.

In view of the foregoing, Applicants submit that claims 22-28 and 46-46, all the claims presently pending in the application, are patentably distinct from the prior art of record and are in

condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary. Please charge any deficiencies and credit any overpayments to Attorney's Deposit Account Number 09-0456.

Respectfully submitted,

Dated: 7-21-05



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